#### **REMARKS**

This paper is responsive to the office action dated April 29 2009, wherein claims 1, 2, 4-8, 10-13, and 22-26 were rejected. Claims 19 and 20 were withdrawn. By this paper, claims 7, 22, and the specification have been amended. No new matter has been added. Claims 1, 2, 4-8, 10-13, 19, 20, and 22-26 will be pending in this application. In view of the amendments and the following remarks, Applicants request further examination and reconsideration of the present patent application.

### 35 USC §112

Applicants respectfully note the rejection of claims 7-8 and 10-13 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the office action, the Examiner stated that regarding claim 7, the term "axial coverage" is not defined by the claim. See office action, page 2, Applicant hereby amend paragraph 38 of the specification to define "axial coverage." Specifically, applicants amended paragraph 38 to state that "axial coverage is defined as the extent of the possible x-ray beam from the x-ray tube 56 along an axis of a patient." No new matter has been added. Applicants also wish to point out that the term "axial coverage" is generally known to one skilled in the art of computed tomography.

Applicant respectfully requests that the Examiner withdraw the rejection under 35 USC 112.

# 35 USC §102

Applicants respectfully note the rejection of claims 1-2, 4, 7-8, 10-11, and 22-24 under 35 U.S.C. 102(e) as being anticipated by Chidester, (U.S. Patent 6, 819, 741, hereinafter "Chidester"). Of these, claims 1, 7, and 22 are independent claims.

## Independent claims 1, 7, 22 and claims depending therefrom

Independent claim 1 and amended independent claims 7 and 22 recite, *inter alia*, "wherein the insulator and the motor rotor system <u>are located on the same side of the target</u>".

The cited reference do not disclose each and every element of the invention, as recited in the independent claims 1, 7, and 22. Specifically, the cited reference does not disclose the

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foregoing feature of the independent claims 1, 7, and 22. Chidester specifically discloses:

The x-ray tube 10 preferably includes an outer housing 11 and a vacuum enclosure 12 disposed within the housing 11. A rotary anode 14, and a cathode 16 are disposed inside the vacuum enclosure 12. The anode 14 is spaced apart from and oppositely disposed to the cathode 16 in such a way as to be positioned to receive electrons emitted by a filament 18 disposed in the cathode. A target surface 20 typically comprising TZM (an alloy of titanium, zirconium, and molybdenum) is disposed on a graphite substrate 22 of the anode 14. The anode 14 is rotatably supported by a support stem 24 and a bearing assembly 26, and it is rotated during tube operation by motor, such as a stator 28. See: FIG. 1, Chidester col 5, lines 52-65 (emphasis added).

An electric field caused by the high voltage differential between the anode 14 and the cathode 16 causes the electron stream 30 to accelerate from the cathode toward a focal spot 32 located on the target surface 20 of the anode, where the anode is caused to rotate at a high rate of revolution by the stator 28. See: FIG. 1, Chidester col 6, lines 9-14 (emphasis added).

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The cathode 16 in the single-ended x-ray tube 10 is structurally supported by an <u>insulating cathode cone 40</u>. The cathode cone 40 typically comprises a cone shape having open ends and is composed of a ceramic material. See: FIGS. 1 and 2, Chidester col 6, lines 38-41 (emphasis added).

It is clearly evident from the foregoing passages and FIG. 1 of Chidester that <u>insulator 40</u> of the cathode 16 and the motor rotor system (stator 28) of the anode are disposed on opposite sides of the target 20. Chidester do not disclose, "the insulator and the motor rotor system are located on the same side of the target".

Therefore, Chidester does not disclose every element of the independent claims 1, 7, and 22 and does not anticipate it under 35 USC 102(e). Claims 2, 4, 8, 10-11, 23-24 depend directly or indirectly from the allowable independent claims 1, 7, and 22, and are allowable by virtue of its dependency from the allowable independent claims 1, 7, and 22 and also for the subject matter they separately recite. Applicants respectfully request that the Examiner withdraw the rejection under 35 USC 102.

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# 35 USC §103

Claims 1-2, 4-8, 10-13, and 22-26 were rejected under 35 USC § 103(a) as being unpatentable over Chidester in view of Carlson et al., (U.S. Patent No. 5,978,447, hereinafter "Carlson"). Of these, claims 1, 7, and 22 are independent claims.

#### Independent claims 1, 7, 22 and claims depending therefrom

As discussed above, Chidester do not disclose, "the insulator and the motor rotor system are located on the same side of the target" as recited in the independent claims 1, 7, and 22. Carlson also do not obviate the deficiencies of Chidester. The independent claims 1, 7, and 22 are allowable for the reasons discussed above. Claims 2, 4-6, 8, 10-13, 23-26 depend directly or indirectly from the allowable independent claims 1, 7, and 22, and are allowable by virtue of its dependency from the allowable independent claims 1, 7, and 22 and also for the subject matter they separately recite. Therefore applicants respectfully request that the examiner withdraw the rejection under 35 USC 103.

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### Summary

For the reasons set out above, the Applicants respectfully submits that the application is in condition for allowance. Favorable reconsideration and allowance of the application are, therefore, respectfully requested.

If the Examiner believes that anything further is necessary to place the application in better condition for allowance, the Examiner is kindly asked to contact the Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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